SBIR April Webinar

Overview of NSF's SBIR/STTR Program ft. Dr. Ruth Shuman

April 17, 2013

Webinar Overview

- Overview of NSF's SBIR/STTR Program with Dr. Ruth Shuman
- SBA Resources
- National Conference May 14 - May 16
- Q&A

Featured Speaker

Ruth Shuman, Ph.D.

Director, SBIR/STTR Programs, National Science Foundation

Dr. Shuman joined the National Science Foundation in August 2009.

Formerly, she was the founder, president and CEO of a venture-backed life science company, Gentra Systems, Inc., that focused on genetic testing.

She held various consulting/advisory positions with start-up companies and served as CEO-In-Residence for Life Science with the University of Minnesota's Venture Center

She began her career as a faculty member at North Carolina State University. She holds a Ph.D. from the University of Minnesota's Department of Genetics and Cell Biology.

The National Science Foundation's Small Business Programs

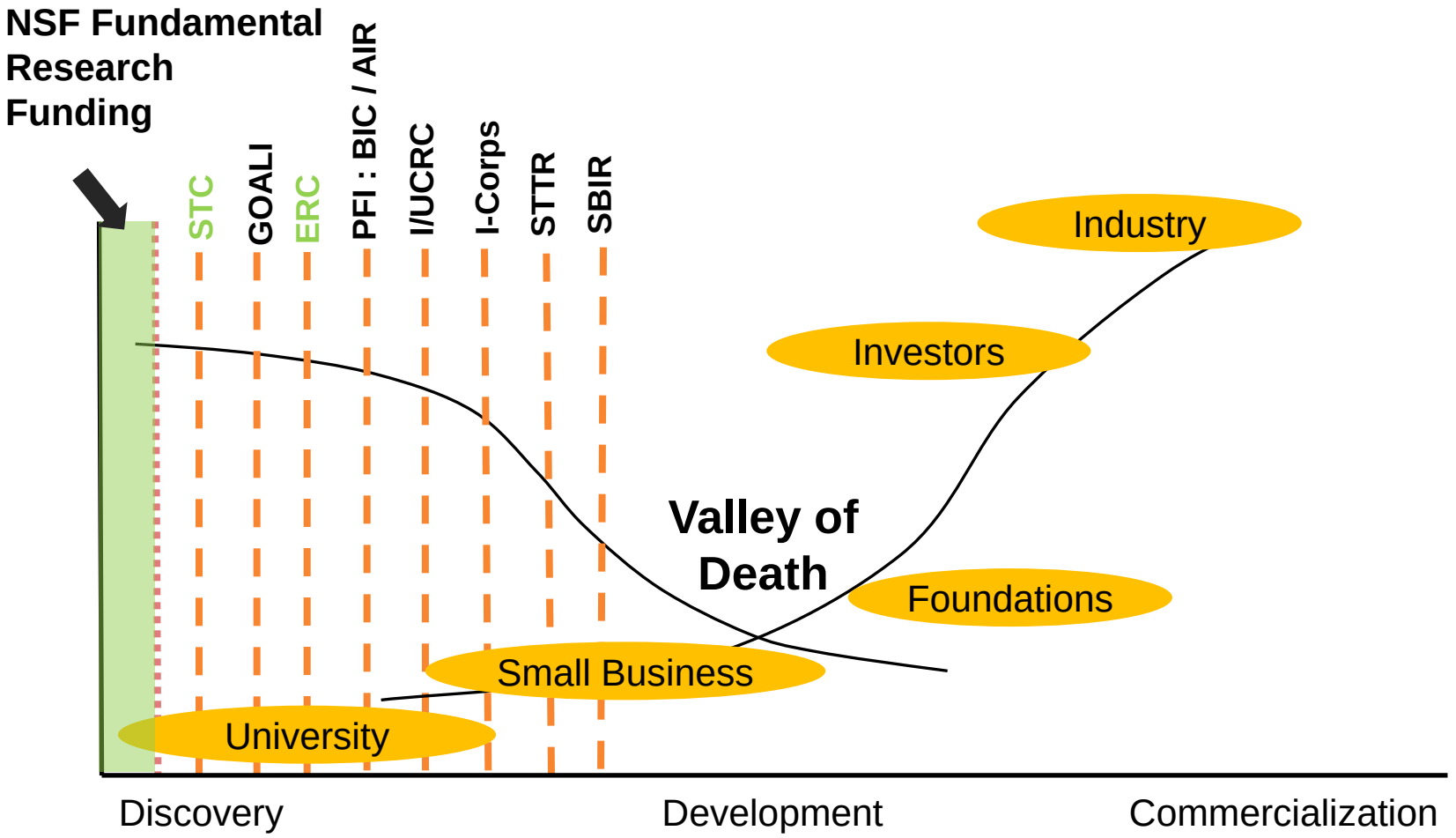
Small Business Innovation Research (SBIR) Program
Phase I Solicitation FY-2014: NSF 13-546

Small Business Technology Transfer (STTR) Program
Phase I Solicitation FY-2014: NSF 13-547

Ruth Shuman, Ph.D.
Program Director
Industrial Innovation and Partnerships
National Science Foundation

April 17, 2013

Innovation Cycle



The SBIR/STTR Program

- Intended to stimulate technological innovation in the private sector
- Primary goals:
  - Strengthen the role of small business in meeting Federal research and development needs
  - Increase the commercial application of federally-supported research results
  - Encourage participation by socially and economically disadvantaged, and women-owned, small businesses

Program Fundamentals

- Provides early-stage funding for R&D on high-risk technologies with high potential for economic/societal benefits
- Awards based on both technical and commercial merit
- Targets early-stage development of technology on a commercial path
- Seeks to fund transformational, game-changing technology
- Values academic collaboration/translation
- Strong focus on commercialization
- Looks for significant market opportunity
- Encourages ties to private sector

Program Focus

- NSF has broad, market-driven technology topics: **YOU IDENTIFY THE PROBLEM/OPPORTUNITY, PROPOSE THE TECHNOLOGICAL SOLUTION, AND DEVISE YOUR BUSINESS STRATEGY**
- NSF is not the "final customer"
- NSF is not buying your technology/product
- NSF wants to see you **commercialize** your research successfully
- NSF provides incentives to encourage you to find investment $$

SBIR Award Information

- Type of Award – 6 month, fixed-price grants
- Award Amount:
  - Phase I not to exceed $150,000
  - Phase II not to exceed $750,000
- Estimated Number of Awards – 200 Awards (pending availability of funds)
  - No obligation to make a specific number of awards
- Anticipated Funding Amount - $30,000,000 (pending availability of funds)

STTR Award Information

- Type of Award – 12 month, fixed-price grants
- Award Amount:
  - Phase I not to exceed $225,000
  - Phase II not to exceed $750,000
- Estimated Number of Awards – 50 Awards (pending availability of funds)
  - No obligation to make a specific number of awards
- Anticipated Funding Amount - $11,250,000 (pending availability of funds)

Eligibility Information

- Organization Requirements:
  - Proposals only may be submitted by companies that qualify as a small business
    - For profit business
    - Fewer than 500 employees
    - Located in the US
    - 51% owned and controlled by US individuals
  - No more than 2 proposals total per company during the SBIR/STTR cycle ending June 13, 2013

Eligibility Information

- Principal Investigator (PI) Limit:
  - Primary employment of the PI must be with the small business at the time the award is made
    - Defined as 51% (of a 40 hour work week) or greater
  - The PI must commit at least 1 calendar month to the SBIR Phase I project; 2 calendar months to the STTR Phase I project
  - No more than 1 proposal per PI or Co-PI

SBIR Consultant/Subaward Information

- Small Business must perform at least 2/3 of the research, as determined by the budget
- Consultants and/or subawardees may perform up to 1/3 of the research, as determined by the budget

STTR Consultant/Subaward Information

- Collaboration with a research institution is required
  - A minimum of 40% of the research must be performed by the company, as measured by the budget
  - A minimum of 30% of the research must be performed by the collaborating research institution, as measured by the budget

Other Important Requirements

- The submission of the same project to both the SBIR and STTR programs is strongly discouraged.
- For STTR proposals, it is highly desirable that the core innovation be linked to fundamental research previously funded by NSF.

Prior to Submission

- Communicate with the Program Director
  - Preferred method – e-mail
  - Send 1-2 page summary that discusses:
    - Company/team (including experience with previous SBIR awards)
    - Market Opportunity
    - Technology/innovation
    - Competition
    - Collaborators

Prior to Submission – Registration

- FastLane registration for company and PI required
- Dun and Bradstreet Data Universal Numbering System (DUNS) number required (includes subawardee)
- System for Award Management (SAM) registration required
- Small Business Administration (SBA) Company Registry registration required

Proposal Guidelines

- Phase I
  - Feasibility and proof-of-concept research focus
- Phase II (must receive a Phase I award to be eligible to submit a Phase II proposal)
  - Prototype development and testing research focus

Proposal Guidelines

- Successful proposals
  - Provide evidence of a commercially viable product, process, device, or system
  - Meet an important social or economic need

Funding Criteria

- We fund high-risk, high-payback innovations
  - With high potential for commercialization
  - That demonstrate strategic partnerships with research collaborators, customers, industry partners, and equity investors
- We do NOT fund
  - Basic research
  - *Evolutionary* optimization of existing products and processes or modifications to broaden the scope of an existing product, process or application
  - Analytical or "market" studies of technologies

Merit Review Criteria

- Intellectual Merit - Quality of the Research
  - A sound approach for establishing technical and commercial feasibility
  - Qualified technical team
  - Sufficient access to resources
  - Significantly advances “state-of-the-art”
- Broader Impact – Potential impact on society
  - Commercial and societal benefits
  - Marketable product
  - Commercialization track record
  - Business expertise
  - Intellectual Property/Other competitive advantages

Commercial Potential

- Scope and Nature of the Business Opportunity:
  - The addressable target market opportunity
    - Is this an enabling technology?
  - The company/team
    - Business and commercialization experience
  - The product features and benefits compared to the competition
  - Intellectual Property (IP) position
  - Financing and revenue model
- Positioned to attract additional investment

SBIR Proposal Submission

- **Proposal submission window:** **May 11 – June 11, 2013**
- **Deadline:** **June 11, 2013**

Due by 5:00 pm Proposer's Time

STTR Proposal Submission

- **Proposal submission window:** **May 13 – June 13, 2013**
- **Deadline:** **June 13, 2013**

Due by 5:00 pm Proposer's Time

SBIR and STTR Topics

- Four broad topic areas:
  - Biological and Chemical Technologies (BC)
  - Education Applications (EA)
  - Electronics, Information and Communication Technologies (EI)
  - Nanotechnology, Advanced Materials, Manufacturing (NM)

BC Subtopic Description

- Biological and Chemical Technologies (BC):
  - Biological Technologies
  - Biomedical Technologies
  - Environmental Technologies
  - Chemical Technologies

BC Program Directors

- Program Directors in Biological and Chemical Technologies (BC):
  - Ruth Shuman (rshuman@nsf.gov)
  - Prakash Balan (pbalan@nsf.gov)
  - Jesus Soriano (jsoriano@nsf.gov)

EA Subtopic Description

- Education Applications (EA):
  - Pre-College Education
  - College and Post-College Education
  - STEM Educational Gaming
  - Entrepreneurial Education
  - Tools for Learning and Assessment

EA Program Director

- Program Director for Education Applications (EA):
  - Glenn Larsen (glarsen@nsf.gov)

EI Subtopic Description

- Electronics, Information and Communication Technologies (EI):
  - Services: Security & privacy; search & mining; digital arts; financial
  - Applications: Mobile; collective intelligence; design/test; virtualization
  - Systems: HCI; robotics; wireless; instruments; energy management
  - Components: MEMS; sensors; optoelectronics; RF; packaging
  - Devices: Optoelectronics; IC design; other novel devices

EI Program Directors

- Program Directors for Electronics, Information and Communication Technologies (EI):
  - Murali Nair (mnair@nsf.gov)
  - Juan Figueroa (jfigueroa@nsf.gov)

NM Subtopic Description

- Nanotechnology, Advanced Materials, and Manufacturing (NM):
  - Nanomaterials, Nanomanufacturing, Nanodevices, and Nanoinstrumentation
  - Electronic, Optical, and Magnetic Materials
  - Materials for Energy Generation and Storage
  - Structural Materials, Coatings, and High-Temperature Materials
  - Sustainable Materials and Smart Materials
  - Manufacturing Equipment and Processes

NM Program Directors

- Program Directors for Nanotechnology, Advanced Materials, and Manufacturing (NM):
  - Ben Schrag (bschrag@nsf.gov)
  - Rajesh Mehta (rmehta@nsf.gov)
  - Steve Konsek (skonsek@nsf.gov)

Life Cycle Certification

- Long standing program with NSF's Office of Inspector General (OIG) to minimize fraud, waste, and abuse
- Grantees receive training from OIG at the Phase I Grantee Workshop
- Signed Certification form required with each progress report
- Montgomery Fisher, NSF's OIG, to address fraud, waste, and abuse at the National SBIR Conference, May 14-16, 2013

Guide to Proposal Submission

A step-by-step user guide is available for entering a SBIR or STTR Phase I proposal in NSF's FastLane system. PLEASE USE IT!

http://www.nsf.gov/eng/iip/sbir/FastLane_Step_by_Step_Guide_Phase_I_updated_October_2011.pdf

✓*You must register your company and PI in FastLane prior to submitting your proposal, a process that could take 3-5 days;*

SBIR/STTR Webinar Presentations

SBIR Webinar Presentation:

April 23, 3013, 2:00 pm Eastern

STTR Webinar Presentation:

April 24, 2013, 2:00 pm Eastern

Links to the Solicitations:

SBIR Solicitation: NSF 13-546

STTR Solicitation: NSF 13-547

Questions?

National Science Foundation
Small Business Programs

http://www.nsf.gov/div/index.jsp?org=IIP

Thank You!

Resources

SBIR.gov Website

- Searchable database of open solicitations
- Information on how to apply
- Links to agency SBIR websites
- Sign up for e-mail and webinar updates

Policy Directive

http://www.sbir.gov/about/sbir-policy-directive

Compliance Guide

http://sbir.gov/sites/default/files/elig_size_compliance_guide.pdf

SBIR National Conference

- National SBIR conference will be co-located with the 15th Annual TechConnect World and the National Innovation Summit and Showcase (NISS) in Washington, DC from May 14 - May 16 2013.

- Focused panels on engaging the underserved communities

http://nationalinnovationsummit.com/program/National_SBIR_Conference.html

Q&A

Please submit your questions to the Moderator (SBA) through the note box.

- Frequently Asked Questions
  http://www.sbir.gov/faq/general
- Past Webinars
  http://www.sbir.gov/content/sbir-webinars-posted-online
- The recordings and slides of this webinar will be posted on sbir.gov